Table of Contents

Introduction

The following use cases define the main success scenarios for executing the post-optimization analysis. The post-optimization analysis is based on the optimized set of IA resources that results from the optimization process. The post-optimization analysis separates the budgeted and non-budgeted costs prior to determining the administrative and overhead costs that must be added for budgeted elements.   Based on the complexity of the IA organization required by the FPU, post-optimization will use a rule-based process to define new equipment costs and the costs for the personnel required for support, program leadership and administration. These costs are added to each budget alternative on the cost effective frontier produced by iterative runs of the optimization model. The rule-based processes used by FireBase and FirePro, in addition to other processes developed to assess fire program complexity, will form the basis for developing the post-optimization rules.

<u>Summary Use Case</u>

Use Case No: FPA01-06

Use Case Name: **Conduct Post Optimization analysis.**

Brief Description: ***Add the administrative and program overhead costs.***

Primary Actor: Local Agency Fire Planner
Preconditions: FPA01-05-03 is complete.
Triggers: SuD initiates Post Optimization Analysis.

Main Success Scenario:
1. The SuD will use a rule-based process to fund new equipment and facilities that are required to meet objectives within the FPU.
2. The SuD will use a rule-based process to determine the funding required for fire program initial attack program leadership.
3. The SuD will use a rule-based process to determine the funding required for fire program initial attack support and administration.
4. The SuD will add the costs to the FPA Analysis budget for all cost alternatives.

Policy Recommendations: None
Business Rules: None
Assumptions:
1. The rule based process will resemble the one currently used by FireBase and FirePro applications.
2. See the Interagency Fire Program Management Qualifications Standards and Guide, the Instructions and Guiding Principles for Use of the Complexity

Descriptors and the Complexity Spreadsheet. These documents describe the elements that must be considered to determine the complexity of a fire management program and the fire personnel required to support that complexity. It is assumed that the process defined in these documents will play a role in the design of the SuD. The exact nature of that role is not defined.

3. Costs identified in post-optimization will vary based on the IA organization defined by the optimization model.

4. The costs identified in post-optimization will be added to the budgeted costs defined in the optimization model to create the cost effective frontier.

5. Output from the post-optimization analysis will include the ability to report resource utilization by agency and replicated resources required by the optimized organization.

Issues:

6. There is no standard definition of costs for personnel, program leadership, support and administration across the five FPA agencies.

7. See the FPA System PM – Requirements Analysis Question Log

Terms: None

Metadata:

Source:	Requirements Analysis
Author:	Core Team
Date Created:	January 6, 2003
Level:	Business - Detail
Related Use Cases:	FPA01-00, FPA01-05-03, FPA01-06-01, FPA01-06-02, FPA01-06-03
Status:	Reviewed by Core Team
Last Update Date:	January 22, 2003

Detail Use Cases

Use Case No: FPA01-06-01

Use Case Name: **Budget for New Equipment & Facilities**

Brief Description: ***Determine costs for new equipment and facilities.***

Primary Actor: Local Agency Fire Planner
Preconditions: FPA01-05-03 is complete.
Triggers: None identified

Main Success Scenario:

1. SuD uses the results of the fire program analysis for initial attack to identify new equipment or facilities required for the FPU.
2. SuD uses rules to define new equipment costs.
3. SuD uses rules to determine added personnel to staff any new equipment.
4. SuD uses rules to determine the cost of new facilities.
5. SuD adds the cost to the FPU Analysis budget for each cost alternative.

Policy Recommendations: None
Business Rules:
- Rules apply across all FPUs.

Assumptions: None
Issues:
Terms: None
Metadata:

Source:	Requirements Analysis
Author:	Core Team
Date Created:	January 6, 2003
Level:	Business - Detail
Related Use Cases:	FPA01-06, FPA01-05-03
Status:	Reviewed by Core Team
Last Update Date:	January 22, 2003

Use Case No: FPA01-06-02

Use Case Name: **Budget for Program Leadership**

Brief Description: ***Define personnel required for program leadership and determine
costs.***

Primary Actor: Local Agency Fire Planner
Preconditions: FPA01-05-03 is complete.
Triggers: None identified

Main Success Scenario:
1. SuD uses the results of the fire program analysis for initial attack to identify program leadership personnel required for the FPU.
2. SuD uses rules to define personnel costs.
3. SuD adds the cost to the FPU Analysis budget for each cost alternative.

Policy Recommendations: None
Business Rules:
8. Rules are predefined and apply across FPUs.
Assumptions: None
Issues: None
Terms: None
Metadata:
    Source: Requirements Analysis
    Author: Core Team
    Date Created: January 6, 2003
    Level: Business - Detail
    Related Use Cases: FPA01-06, FPA01-05-03
    Status: Reviewed by Core Team
    Last Update Date: January 22, 2003

Use Case No: **FPA01-06-03**

Use Case Name: **Budget for Support and Administration.**

Brief Description: ***Define personnel required for administration and determine costs.***

Primary Actor: Local Agency Fire Planner
Preconditions: FPA01-05-03 is complete.
Triggers: None identified

Main Success Scenario:
1. SuD uses the results of the fire program analysis for initial attack to identify support and administrative personnel required for the FPU.
2. SuD uses rules to define personnel and support costs.
3. SuD adds the cost to the FPU Analysis budget for each cost alternative.

Policy Recommendations: None
Business Rules: None
Assumptions: None
Issues:
9. There are different definitions for support costs within the five FPA agencies.
Terms: None
Metadata:

Source:	Requirements Analysis
Author:	Core Team
Date Created:	January 6, 2003
Level:	Business - Detail
Related Use Cases:	FPA01-06, FPA01-05-03
Status:	Reviewed by Core Team
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